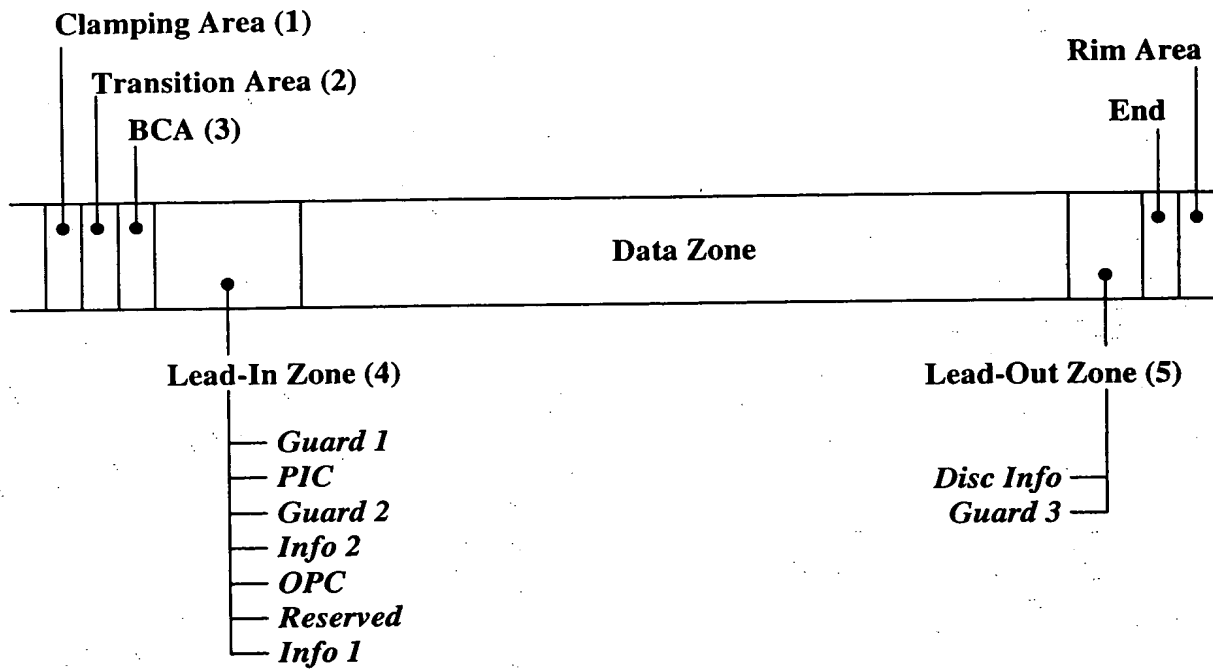
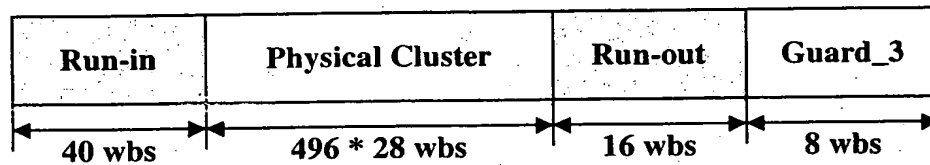
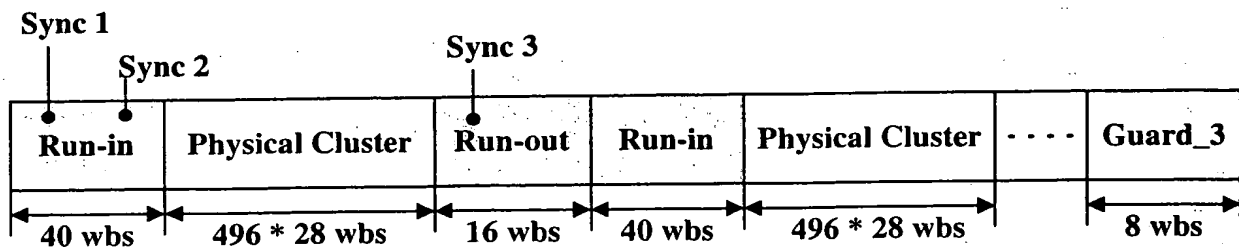


**FIG. 1A****FIG. 1B***Single written Recording Unit Block (RUB)***FIG. 1C***Continuously written sequence of Recording Unit Blocks*

**FIG. 1D**

Run-In	Physical Cluster	Run-Out	Run-In
2760 Channel Bit	958272 Channel Bit (Recodring Frames #0 - #30)	1104 Channel Bit	2760 Channel Bit

Frame Number	Frame Sync	Frame Number	Frame Sync
Frame #0	FS 0	Frame #16	FS 5
Frame #1	FS 1	Frame #17	FS 3
Frame #2	FS 2	Frame #18	FS 2
Frame #3	FS 3	Frame #19	FS 2
Frame #4	FS 3	Frame #20	FS 5
Frame #5	FS 1	Frame #21	FS 6
Frame #6	FS 4	Frame #22	FS 5
Frame #7	FS 1	Frame #23	FS 1
Frame #8	FS 5	Frame #24	FS 1
Frame #9	FS 5	Frame #25	FS 6
Frame #10	FS 4	Frame #26	FS 2
Frame #11	FS 3	Frame #27	FS 6
Frame #12	FS 4	Frame #28	FS 4
Frame #13	FS 6	Frame #29	FS 4
Frame #14	FS 6	Frame #30	FS 2
Frame #15	FS 3		

**FIG. 1E**

Sync Number	24-bit sync body	6-bit sync ID
FS 0	01 010 000 000 010 000 000 010	000 001
FS 1	01 010 000 000 010 000 000 010	010 010
FS 2	01 010 000 000 010 000 000 010	101 000
FS 3	01 010 000 000 010 000 000 010	100 001
FS 4	01 010 000 000 010 000 000 010	000 100
FS 5	01 010 000 000 010 000 000 010	001 001
FS 6	01 010 000 000 010 000 000 010	010 000

FIG. 2A

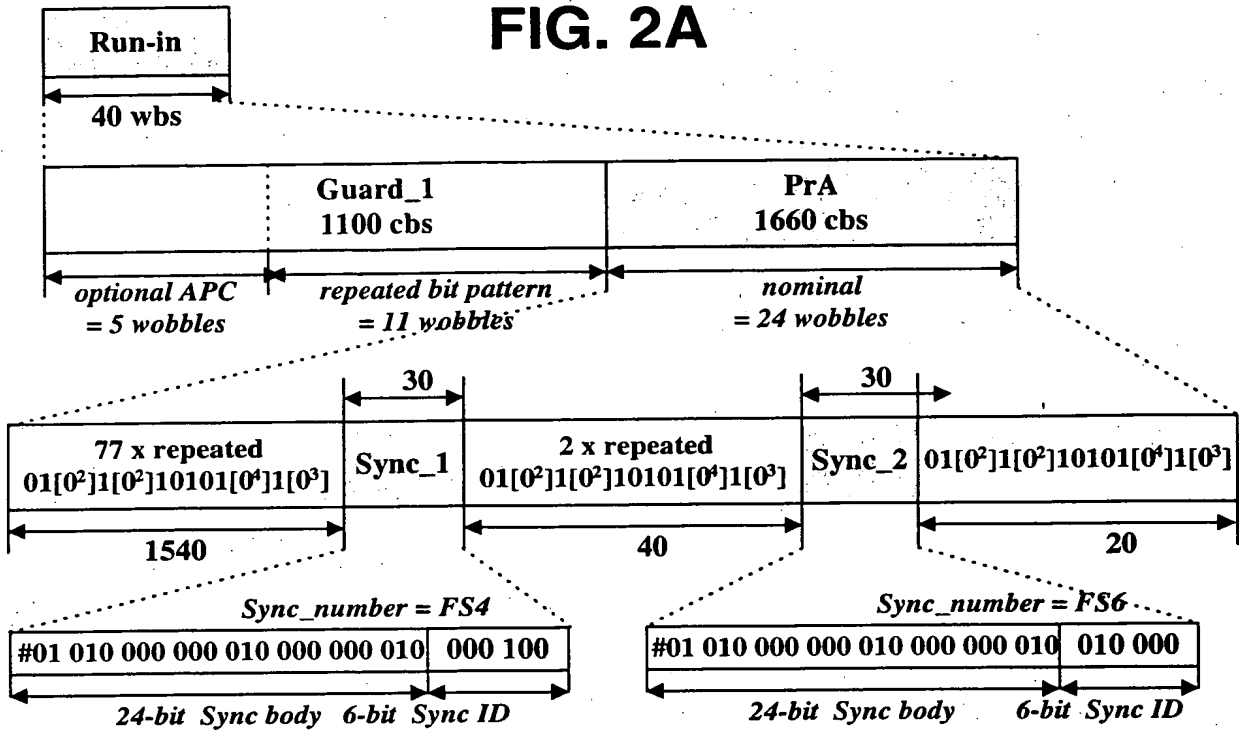


FIG. 2B

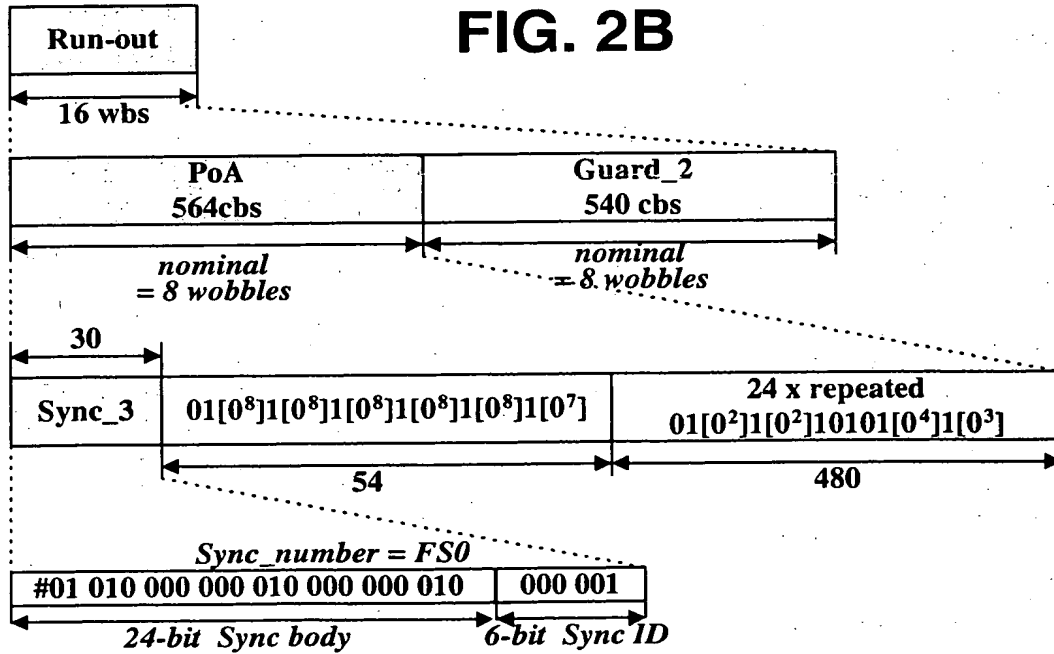


FIG. 3A

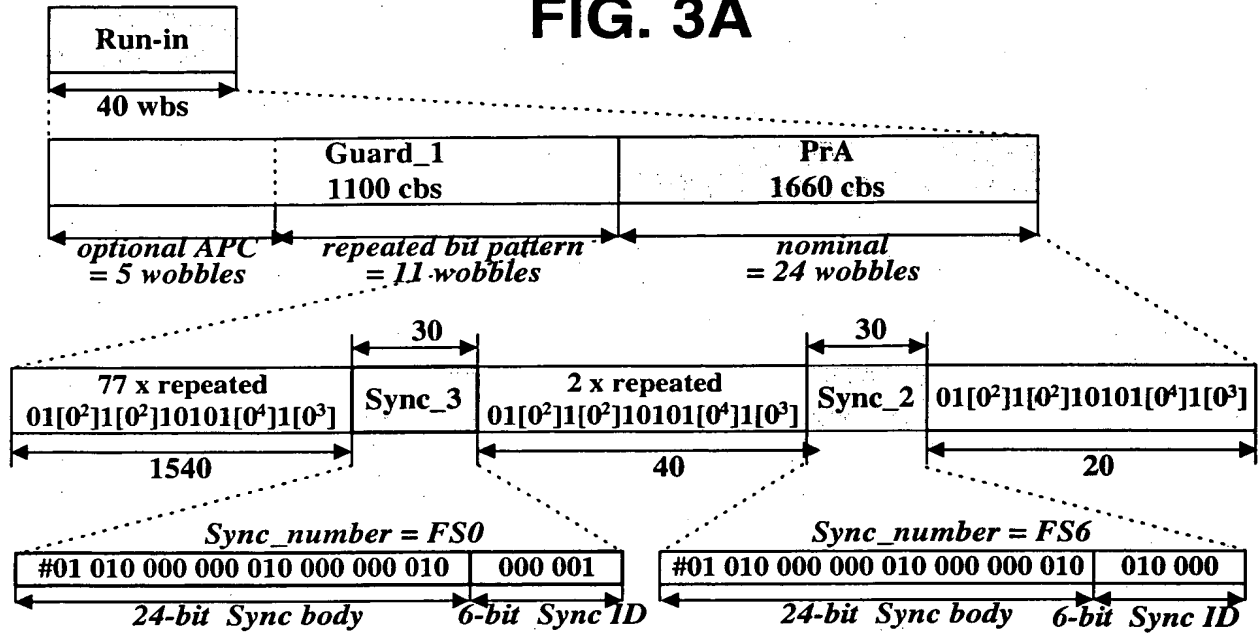
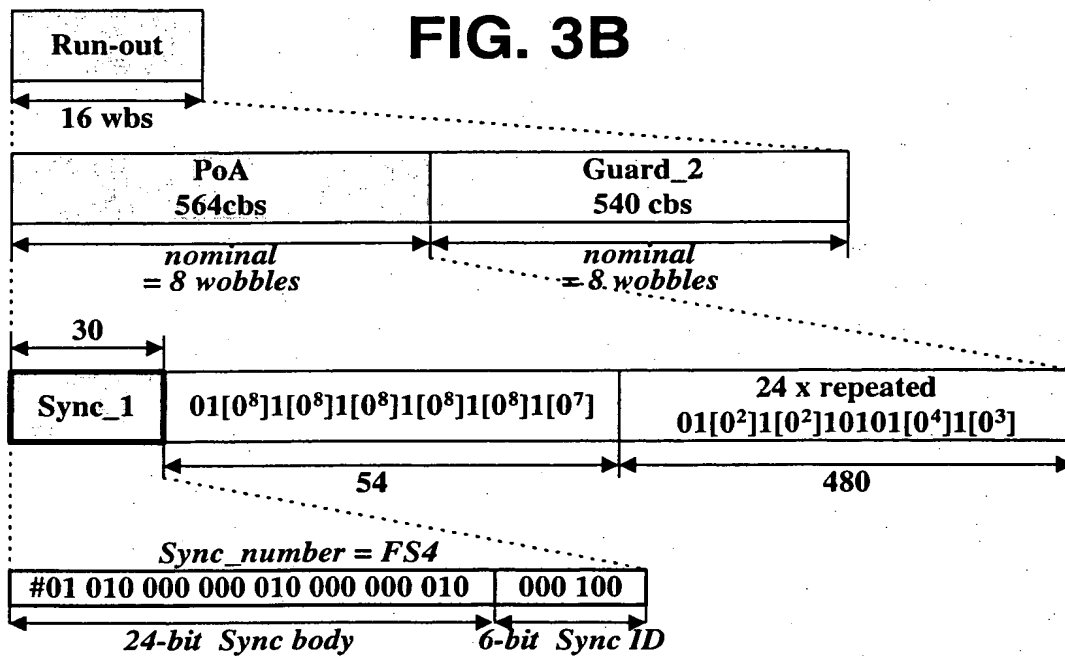
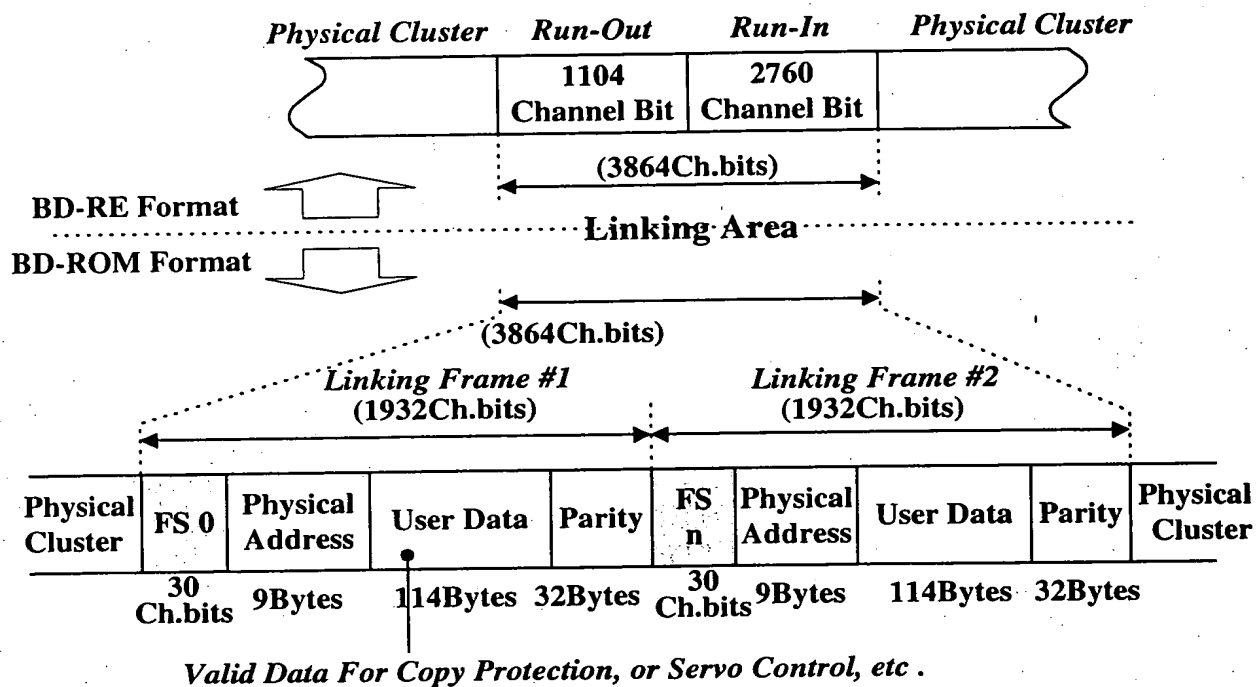
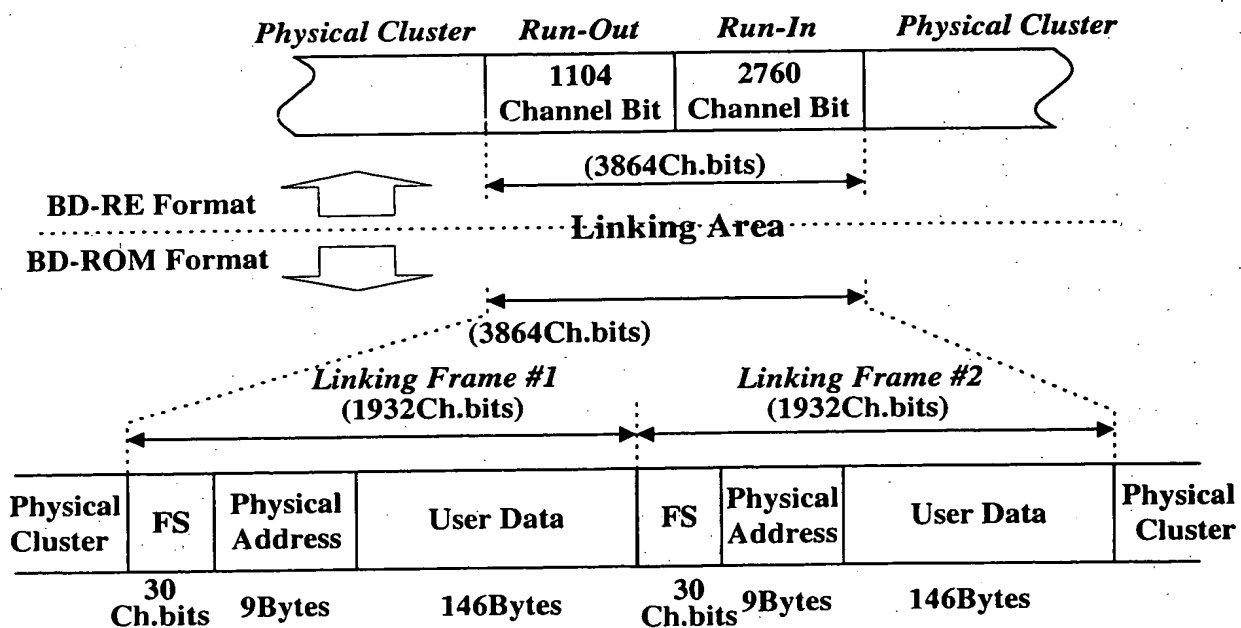
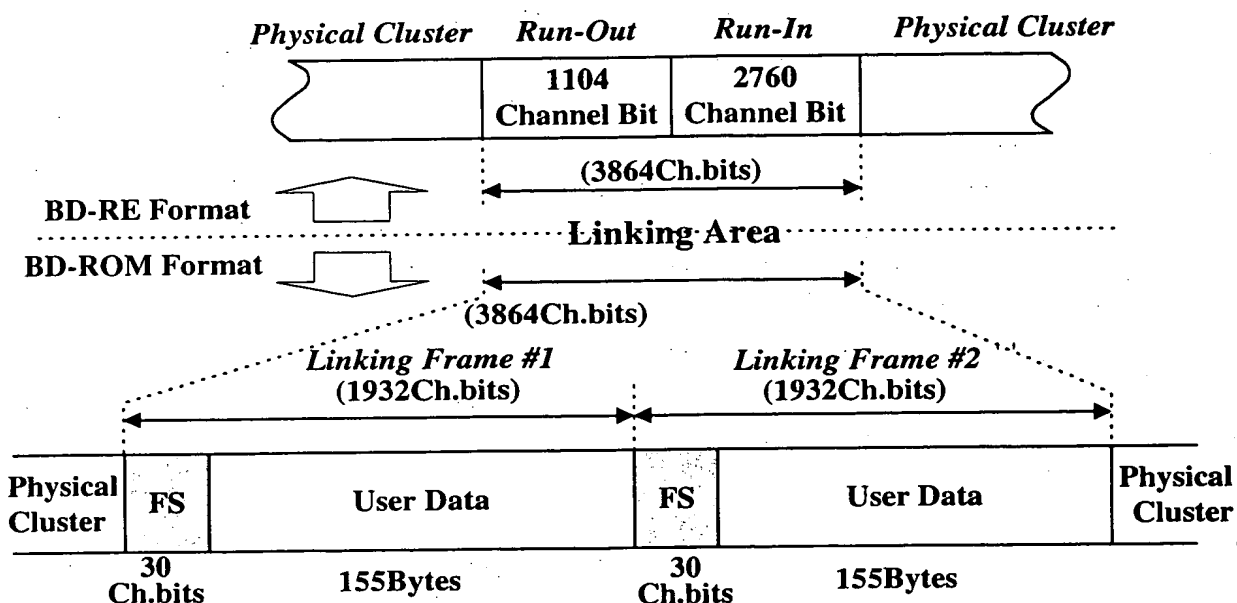
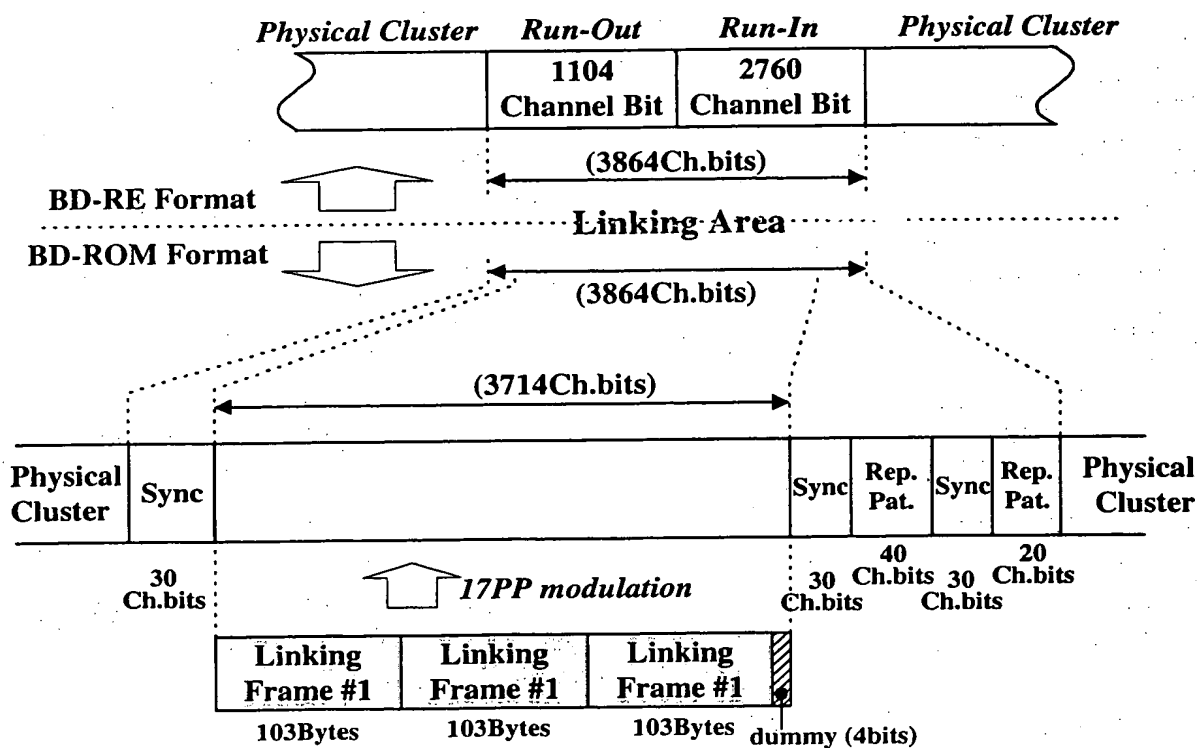


FIG. 3B

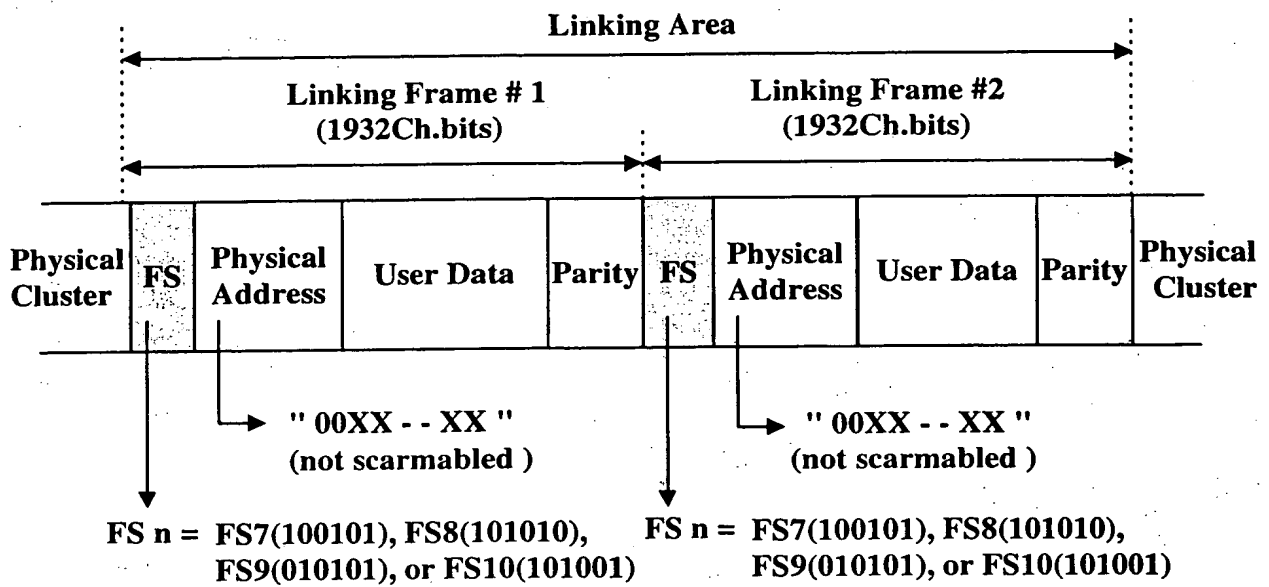


**FIG. 4A****FIG. 4B**

**FIG. 4C****FIG. 4D**

**FIG. 5**

<i>FS n (new)</i>	01 010 000 000 010 000 000 010	<i>FS 7 : 100 101</i> <i>FS 8 : 101 010</i> <i>FS 9 : 010 101</i> <i>FS 10: 101 001</i>
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**FIG. 6A****FIG. 6B**

	Case 1	Case 2	Case 3	Case 4
FS #1	FS0	FS0	FS7, 8, or 9	FS10
FS #2	FS7	FS10	FS7, 8, or 9	FS10

**FIG. 7A**

Sync 1 : FS0, Sync 2 : FS7

Frame n	Frame n-1	Frame n-2	Frame n-3	Frame Number	
FS0	FS7	FS0	FS2	0	→ (1)
FS0	FS2	FS4	FS4	0	→ (2)
FS0	FS2	FS4	FS4	31	
FS1	FS0	FS7/FS2	FS0/FS4	1	→ (3)
FS1	FS3	FS3	FS2	5	
FS1	FS4	FS1	FS3	7	
FS1	FS5	FS6	FS5	23	
FS1	FS1	FS5	FS6	24	
FS2	FS1	FS0	FS7/FS2	2	→ (4)
FS2	FS3	FS5	FS3	18	
FS2	FS2	FS3	FS5	19	
FS2	FS6	FS1	FS1	26	
FS2	FS4	FS4	FS6	30	
FS3	FS2	FS1	FS0	3	
FS3	FS3	FS2	FS1	4	
FS3	FS4	FS5	FS5	11	
FS3	FS6	FS6	FS4	15	
FS3	FS5	FS3	FS6	17	
FS4	FS1	FS3	FS3	6	
FS4	FS5	FS5	FS1	10	
FS4	FS3	FS4	FS5	12	
FS4	FS6	FS2	FS6	28	
FS4	FS5	FS3	FS6	29	
FS5	FS1	FS4	FS1	8	
FS5	FS5	FS1	FS4	9	
FS5	FS3	FS6	FS6	26	
FS5	FS2	FS2	FS3	20	
FS5	FS6	FS5	FS2	22	
FS6	FS4	FS3	FS4	13	
FS6	FS6	FS4	FS3	14	
FS6	FS5	FS2	FS2	21	
FS6	FS1	FS1	FS5	25	
FS6	FS2	FS6	FS1	27	
FS7	FS0	2	FS4	32	

- (1) : Frame Number 0 for the 1<sup>st</sup> AUN(Address Unit) of RUB  
 (2) : Frame Number 0 for the the Middle AUN(Address Unit) of RUB  
 (3) : Frame Number 1 (1<sup>st</sup> AUN(Address Unit) of RUB / Middle AUN(Address Unit) of RUB)  
 (4) : Frame Number 2 (1<sup>st</sup> AUN(Address Unit) of RUB / Middle AUN(Address Unit) of RUB)



**FIG. 7B**

Sync 1 : FS7, Sync 2 : FS7

Frame n	Frame n-1	Frame n-2	Frame n-3	Frame Number	
FS0	FS7/FS2	FS7/FS4	FS2/FS4	0	→ (1)
FS1	FS0	FS7/FS2	FS7/FS4	1	→ (2)
FS1	FS3	FS3	FS2	5	
FS1	FS4	FS1	FS3	7	
FS1	FS5	FS6	FS5	23	
FS1	FS1	FS5	FS6	24	
FS2	FS1	FS0	FS7/FS2	2	→ (3)
FS2	FS3	FS5	FS3	18	
FS2	FS2	FS3	FS5	19	
FS2	FS6	FS1	FS1	26	
FS2	FS4	FS4	FS6	30	
FS3	FS2	FS1	FS0	3	
FS3	FS3	FS2	FS1	4	
FS3	FS4	FS5	FS5	11	
FS3	FS6	FS6	FS4	15	
FS3	FS5	FS3	FS6	17	
FS4	FS1	FS3	FS3	6	
FS4	FS5	FS5	FS1	10	
FS4	FS3	FS4	FS5	12	
FS4	FS6	FS2	FS6	28	
FS4	FS5	FS3	FS6	29	
FS5	FS1	FS4	FS1	8	
FS5	FS5	FS1	FS4	9	
FS5	FS3	FS6	FS6	26	
FS5	FS2	FS2	FS3	20	
FS5	FS6	FS5	FS2	22	
FS6	FS4	FS3	FS4	13	
FS6	FS6	FS4	FS3	14	
FS6	FS5	FS2	FS2	21	
FS6	FS1	FS1	FS5	25	
FS6	FS2	FS6	FS1	27	
FS7	FS2	FS4	FS4	31	
FS7	FS7	FS2	FS4	32	

**B**

- (1) : Frame Number 0 (1<sup>st</sup> AUN(Address Unit) of RUB / Middle AUN(Address Unit) of RUB)  
 (2) : Frame Number 1 (1<sup>st</sup> AUN(Address Unit) of RUB / Middle AUN(Address Unit) of RUB)  
 (3) : Frame Number 2 (1<sup>st</sup> AUN(Address Unit) of RUB / Middle AUN(Address Unit) of RUB)

# FIG. 7C

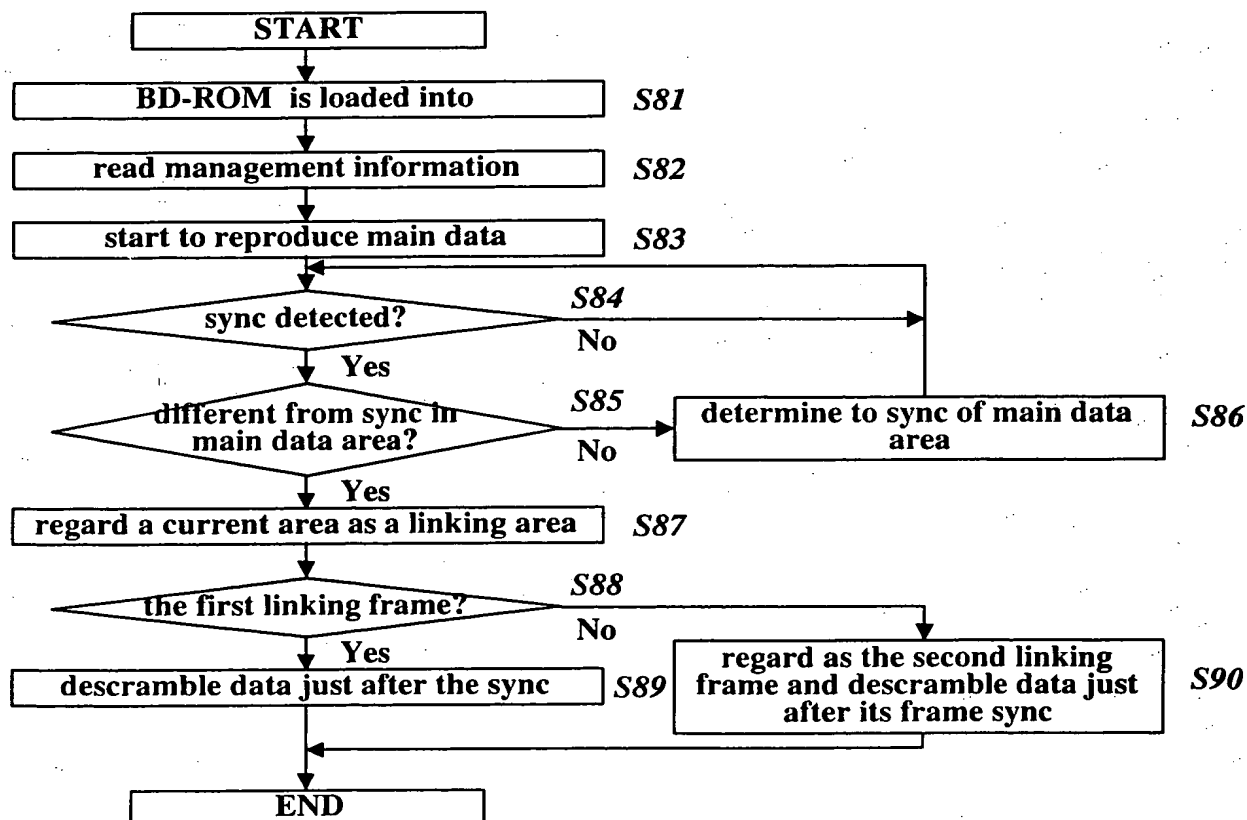
Sync 1 : FS7, Sync 2 : FS8

Frame n	Frame n-1	Frame n-2	Frame n-3	Frame Number	
FS0	FS8/FS2	FS7/FS4	FS2/FS4	0	→ (1)
FS1	FS0	FS8/FS2	FS7/FS4	1	→ (2)
FS1	FS3	FS3	FS2	5	
FS1	FS4	FS1	FS3	7	
FS1	FS5	FS6	FS5	23	
FS1	FS1	FS5	FS6	24	
FS2	FS1	FS0	FS7/FS2	2	→ (3)
FS2	FS3	FS5	FS3	18	
FS2	FS2	FS3	FS5	19	
FS2	FS6	FS1	FS1	26	
FS2	FS4	FS4	FS6	30	
FS3	FS2	FS1	FS0	3	
FS3	FS3	FS2	FS1	4	
FS3	FS4	FS5	FS5	11	
FS3	FS6	FS6	FS4	15	
FS3	FS5	FS3	FS6	17	
FS4	FS1	FS3	FS3	6	
FS4	FS5	FS5	FS1	10	
FS4	FS3	FS4	FS5	12	
FS4	FS6	FS2	FS6	28	
FS4	FS5	FS3	FS6	29	
FS5	FS1	FS4	FS1	8	
FS5	FS5	FS1	FS4	9	
FS5	FS3	FS6	FS6	26	
FS5	FS2	FS2	FS3	20	
FS5	FS6	FS5	FS2	22	
FS6	FS4	FS3	FS4	13	
FS6	FS6	FS4	FS3	14	
FS6	FS5	FS2	FS2	21	
FS6	FS1	FS1	FS5	25	
FS6	FS2	FS6	FS1	27	
FS7	FS2	FS4	FS4	31	
FS8	FS7	FS2	FS4	32	

- (1) : Frame Number 0 (1<sup>st</sup> AUN(Address Unit) of RUB / Middle AUN(Address Unit) of RUB)  
 (2) : Frame Number 1 (1<sup>st</sup> AUN(Address Unit) of RUB / Middle AUN(Address Unit) of RUB)  
 (3) : Frame Number 2 (1<sup>st</sup> AUN(Address Unit) of RUB / Middle AUN(Address Unit) of RUB)

**FIG. 7D***17PP modulation code conversion table*

data bits	modulation bits	
00 00 00 00	010 100 100 100	
00 00 10 00	000 100 100 100	
00 00 00	010 100 000	
00 00 01	010 100 100	
00 00 10	000 100 100	
00 00 11	000 100	
00 01	010 100	
00 10	010 000	
00 11	010 100	
01	010	
10	001	
11	000	if preceding modulation bits = xx1
	101	if preceding modulation bits = xx0

**FIG. 8**

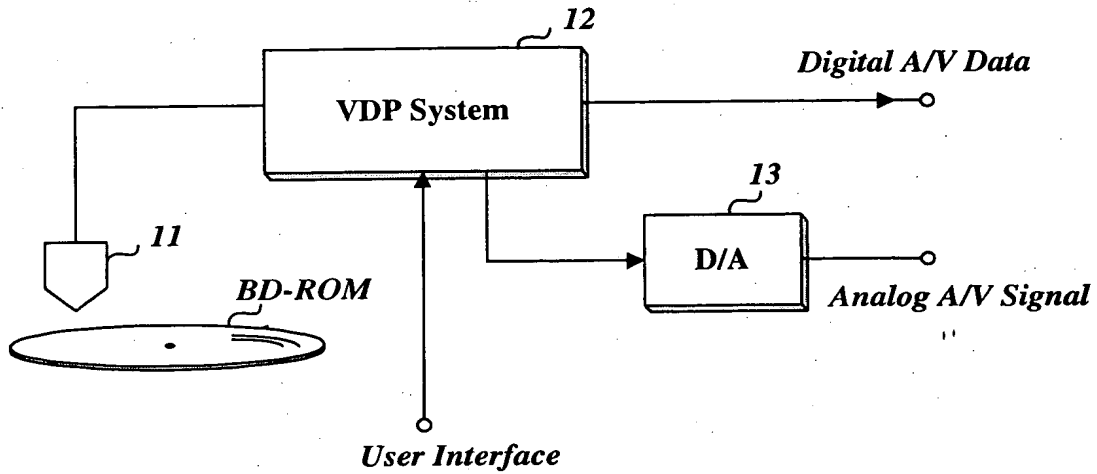
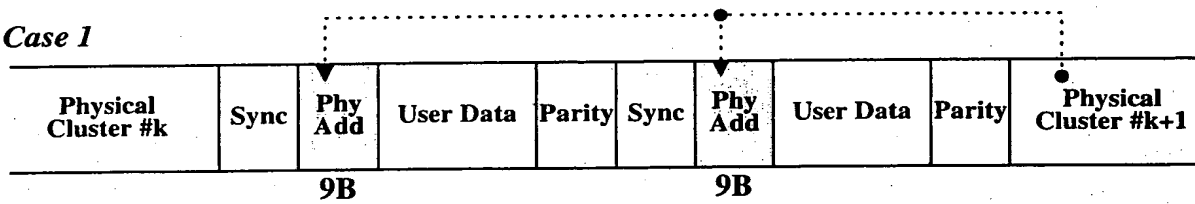
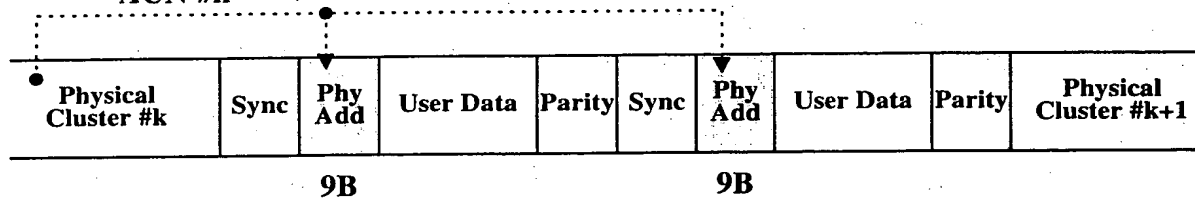
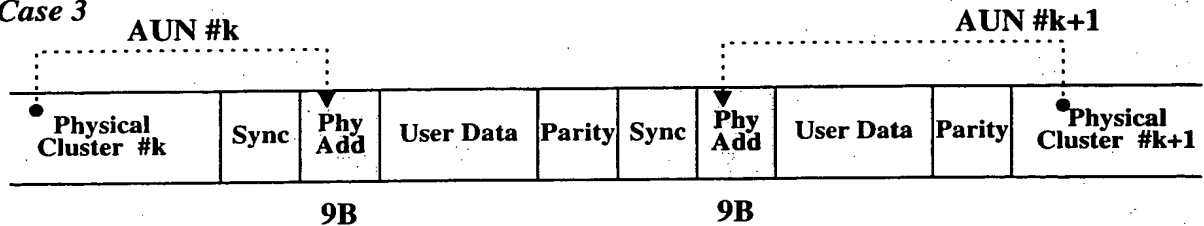
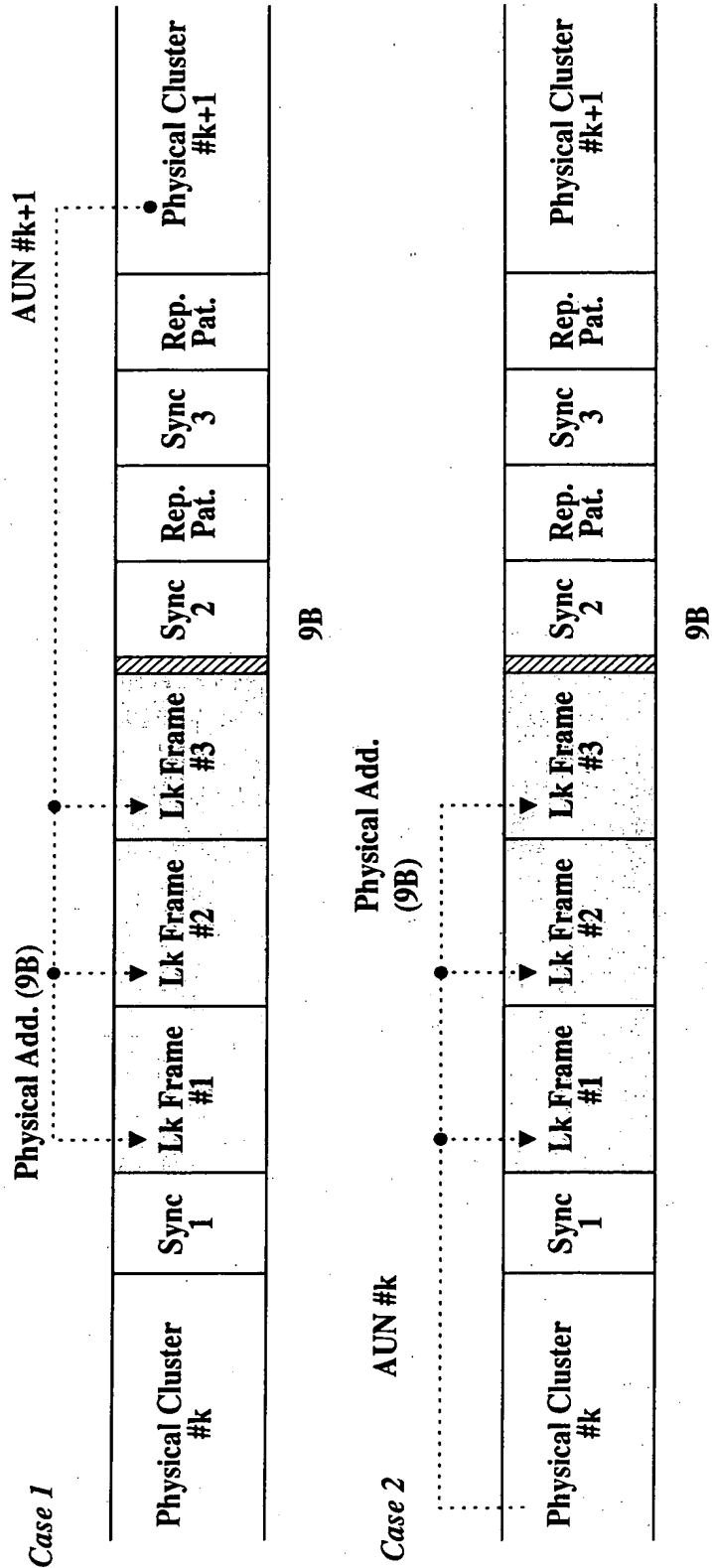
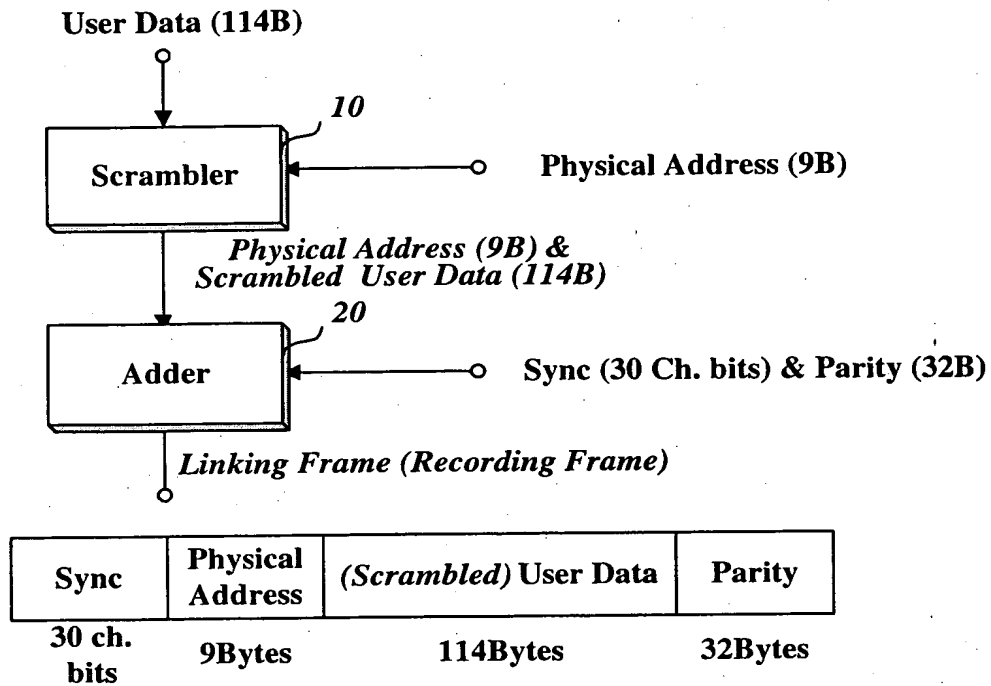
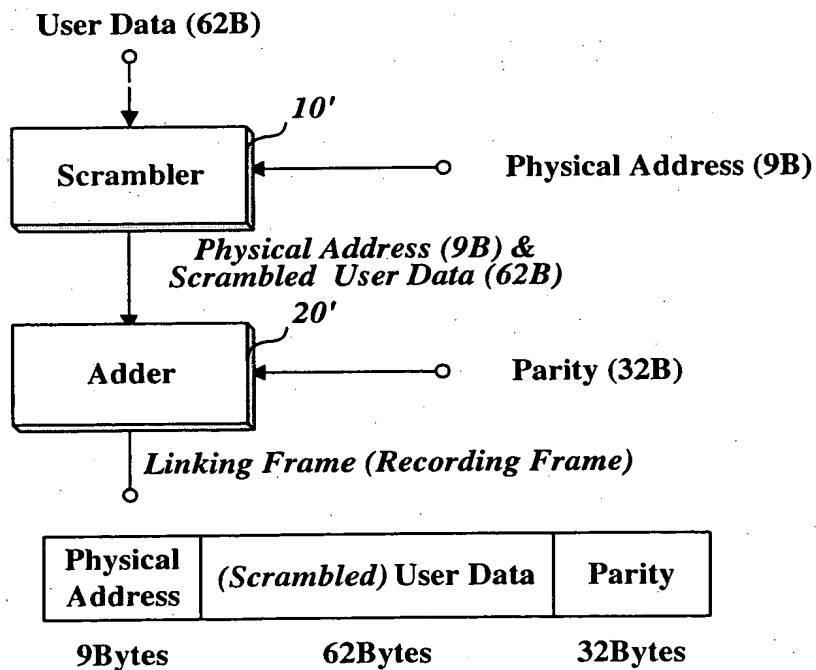
**FIG. 9****FIG. 10A***Case 1**Case 2* AUN #k*Case 3*

FIG. 10B





**FIG. 11A****FIG. 11B**

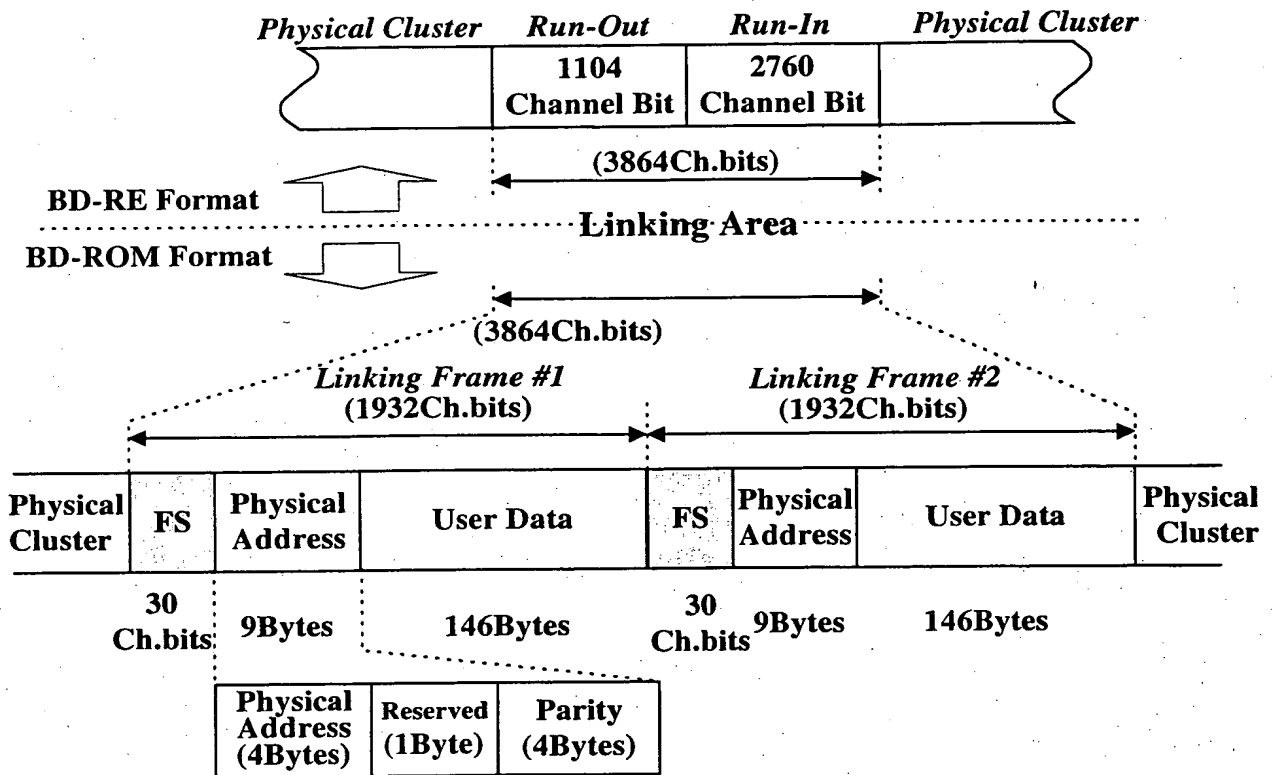
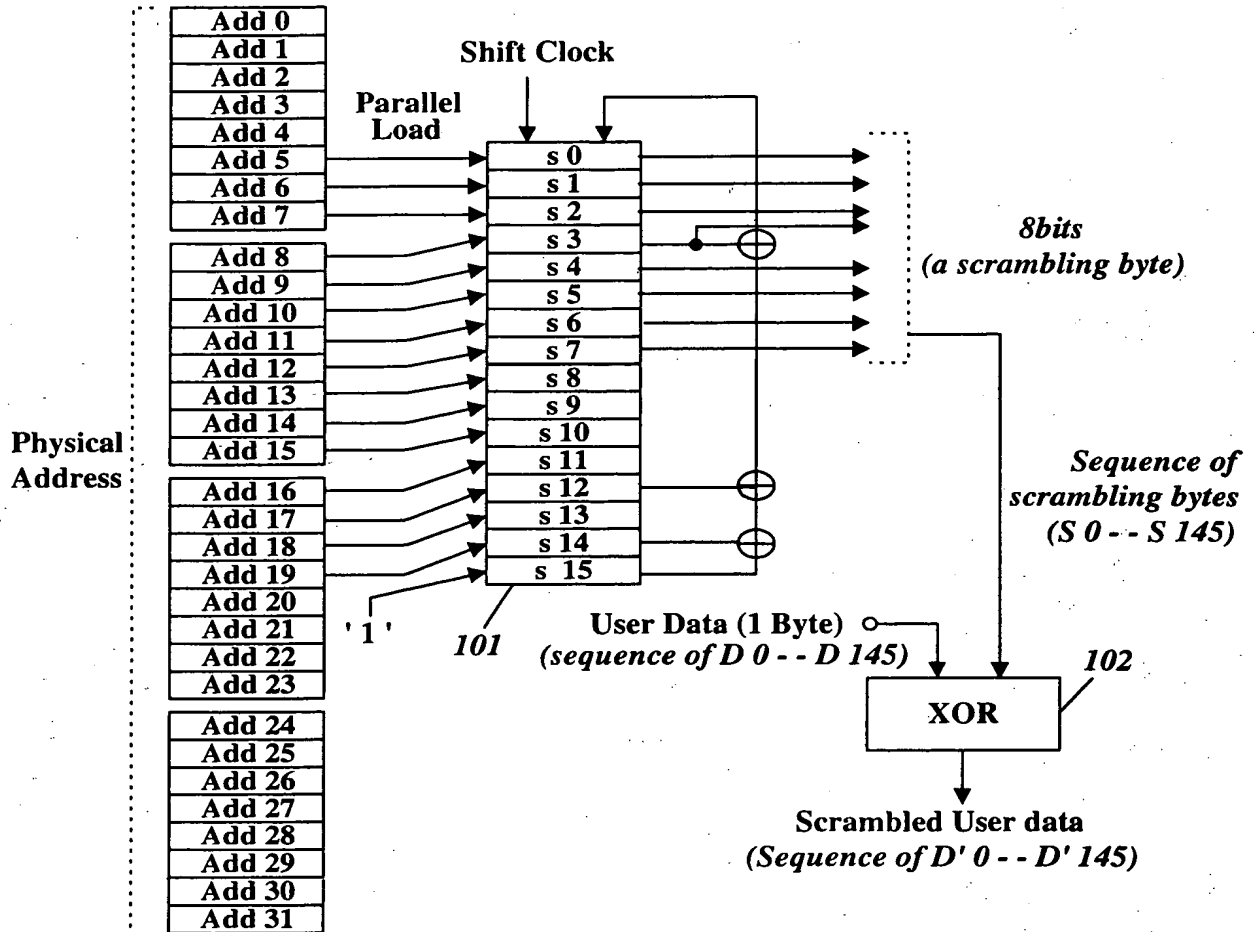
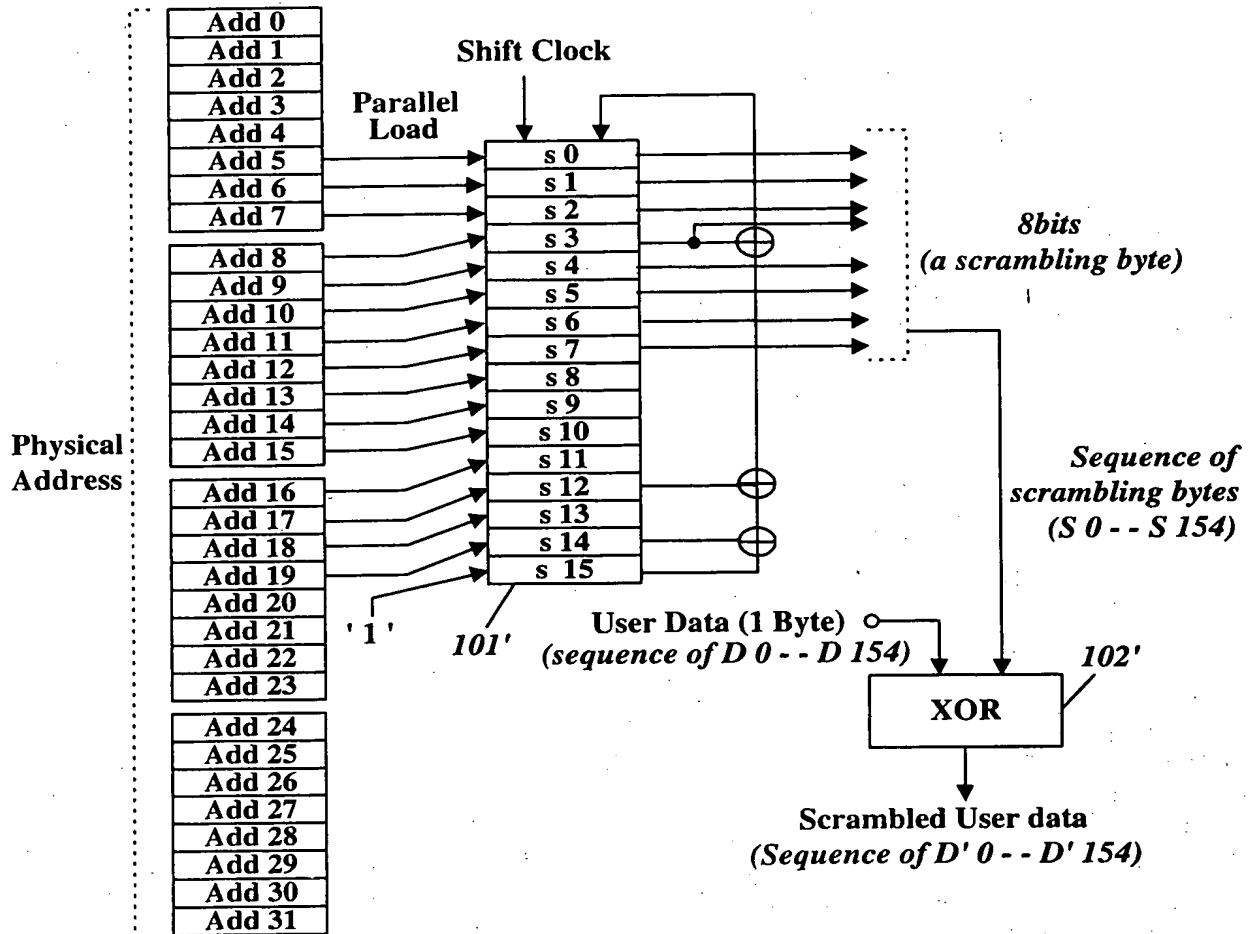
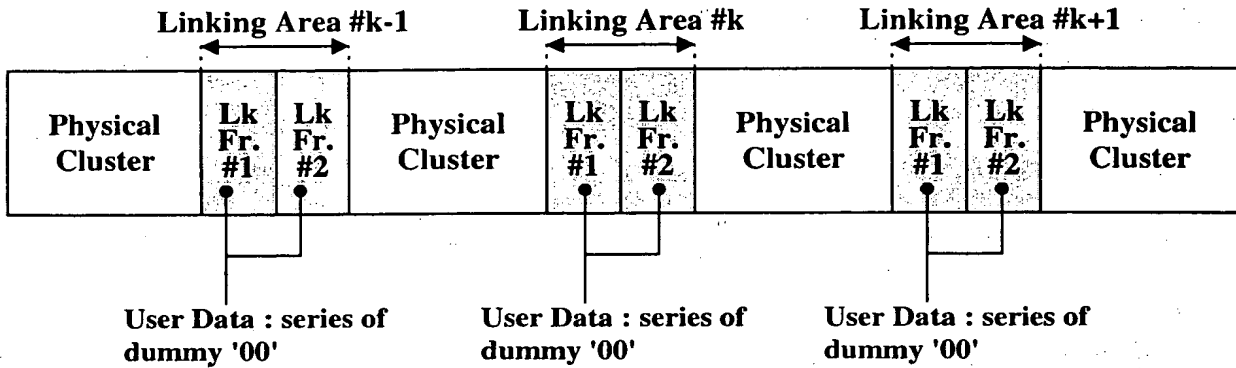
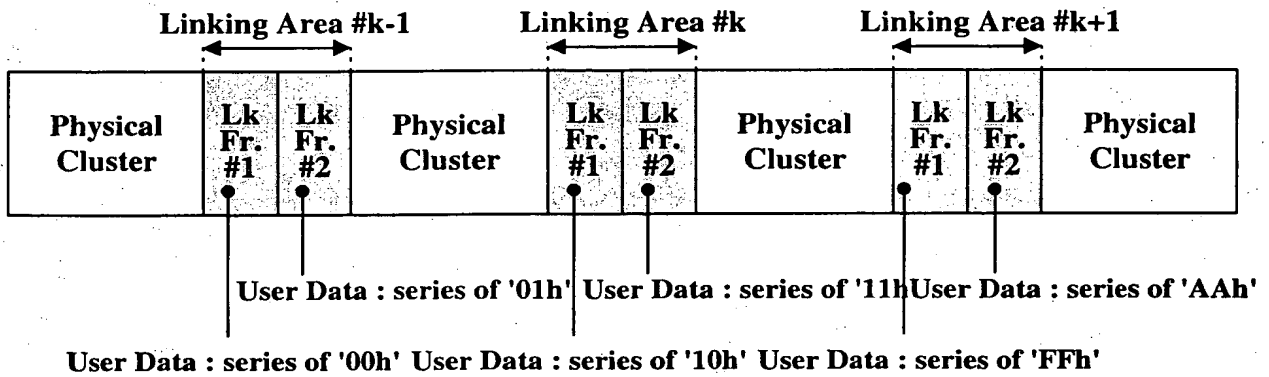
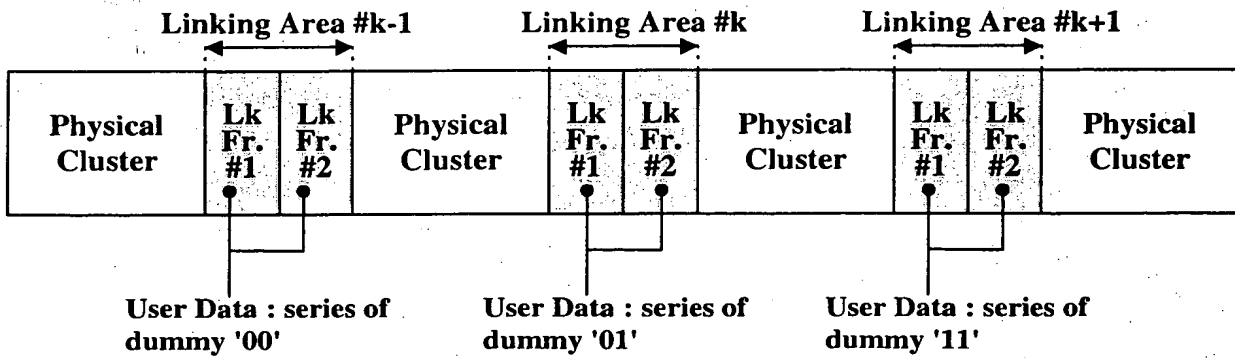
**FIG. 12A**



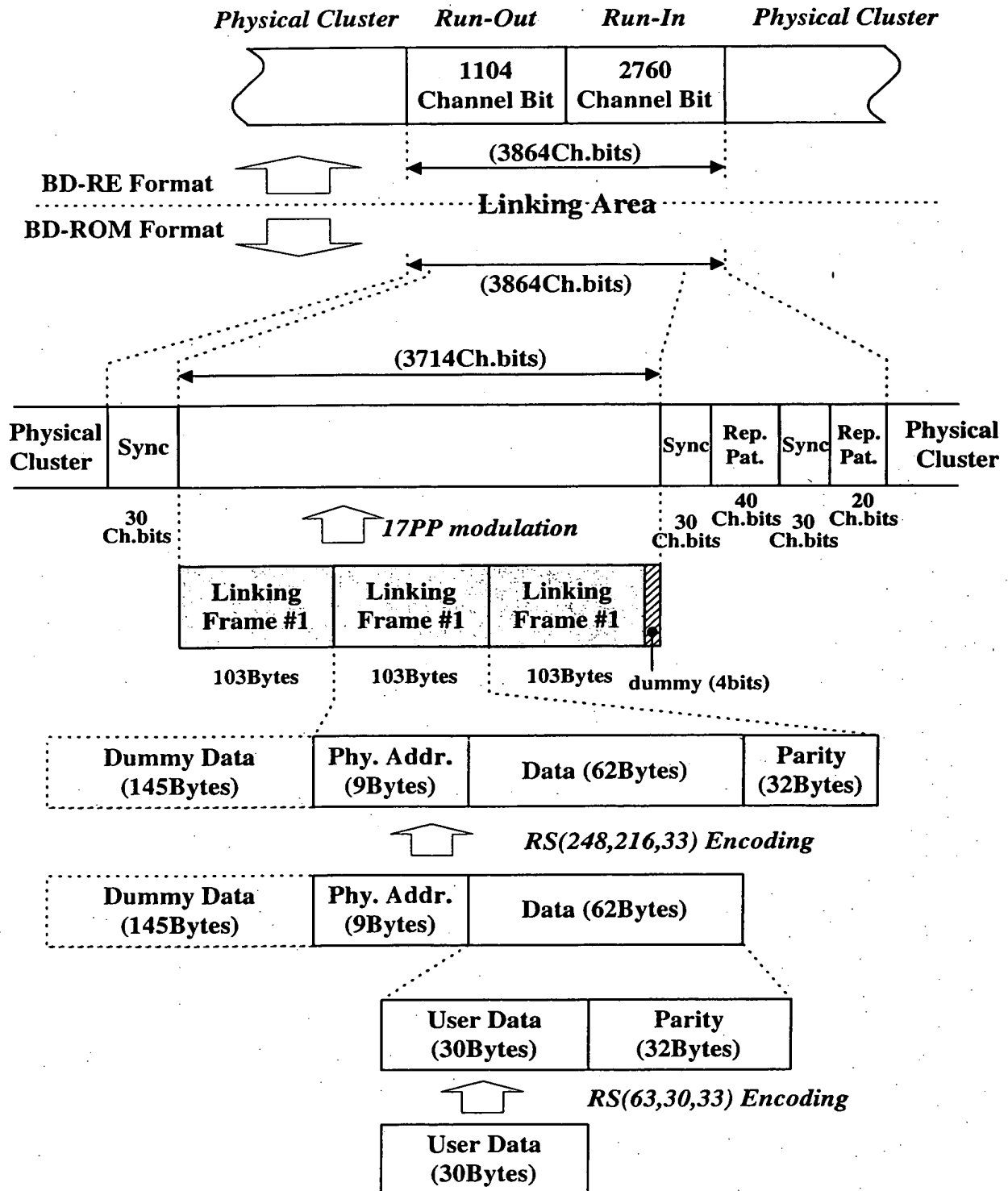
FIG. 12B



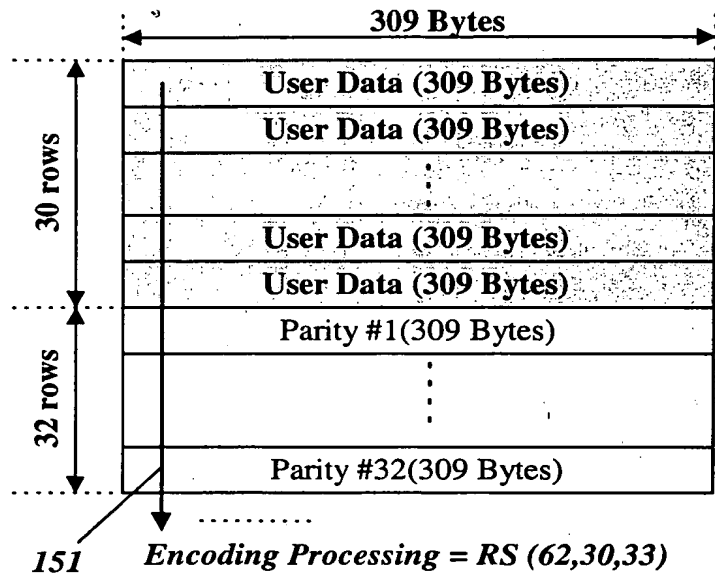
**FIG. 13**

**FIG. 14A****FIG. 14B****FIG. 14C**

**FIG. 15A**



**FIG. 15B**



**FIG. 15C**

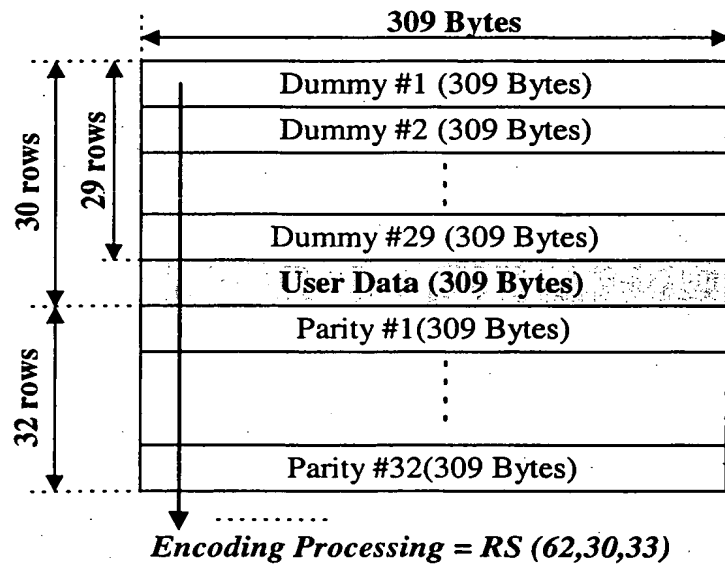


FIG. 16

